

applying a water soluble chemical substance designed to inhibit wetting to a fabric to define treated and untreated fabric regions; and

exposing substantially said entire fabric to an aqueous dye, such that said treated regions are wet by said aqueous dye to a lesser extent than said untreated regions, thereby forming a pattern of relatively dissimilar colors as a result of their relative differences in uptake of the aqueous dye.

Remarks

Claims 1-51 are currently pending in the application; of these, claims 43-51 have been withdrawn from consideration following a Restriction Requirement.

The Examiners' courtesy and consideration during the interview with the Inventor and Applicant's representative are acknowledged with appreciation. During the interview, the amendments presented in this Response were discussed, and it is believed that the distinctions between the prior art and the present invention were effectively understood.

Claim 37 was rejected under 35 USC 112, second paragraph, as being indefinite. Specifically, the Examiner objected to the lack of explicit antecedent basis in the claim for the recitation "pattern of the yarns forming the fabric." Claim 37 has been amended to clarify this recitation; therefore, it is believed that the objection has been obviated.

Claims 1-2, 5-7, 17, 20, 22, 26, 28, 30, 34 and 36-37 were rejected under 35 U.S.C. 102(b) as being anticipated by Crenshaw (US 5,861,044.) As discussed in the interview, the Crenshaw reference describes a process of carving a pattern on a pile fabric by printing a liquid repellent on a pile fabric in a pattern, finishing the fabric, rewetting the fabric with a liquid, and then exposing the fabric to a pressurized heated gas, which selectively carves the dry areas

printed with liquid repellent and leaving the wetted areas protected and uncarved. (Col. 1, lines 21-30.) The portion of the patent relied upon in the rejection is the recitation in Claim 6 of the Crenshaw patent, which describes a multi-step process of applying a first chemical solution comprising a liquid repellent to a surface of the web of fabric, applying a second chemical solution comprising a dye to the surface of the fabric, applying liquid to the fabric and directing pressurized heated gas, to carve the surface of the fabric where the liquid repellent was applied. Reference to the specification shows that this claim is directed to the process described in Fig. 3, which uses a series of screen print heads to create a pattern. As set forth in Col. 3, line 50- Col. 4, line 26, each of the chemical applications is performed in a pattern.

In contrast, the instant invention is directed to a process for creating a patterned fabrics using dye processes previously used for dyeing solid fabrics. In other words, substantially the entire fabric is exposed to the dye, while in Crenshaw, only a patterned portion of the fabric is exposed to the dye, which may or may not correspond with the patterned areas that have been treated with the liquid repellent. Therefore, Crenshaw fails to disclose or suggest the claimed invention.

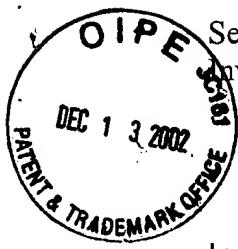
Claim 8 was rejected under 35 USC 103(a) as being unpatentable over Crenshaw in view of Bouwknegt et al. Specifically, the Examiner acknowledged that Crenshaw failed to teach a process of treating a fabric with a chemical substance including an optical brightener. Claim 8 is allowable for the reasons discussed above with respect to the previous claims. The Bouwknegt reference, taken alone or in combination with the Crenshaw reference, fails to disclose or suggest the instant invention as presently claimed. Therefore, it is respectfully requested that the rejection be withdrawn.

Claims 21 and 35 were rejected under 35 USC 103(a) as being unpatentable over Crenshaw in view of Hauser et al. Claims 21 and 35 are allowable for the

reasons discussed above with respect to the previous claims. The Hauser reference, taken alone or in combination with the Crenshaw reference, fails to disclose or suggest the instant invention as set forth in these claims. Therefore, it is respectfully requested that the rejection be withdrawn.

Claims 3,4,6,9,14,16,27,29 and 31 were rejected over Crenshaw in view of Egli et al. Claim 8 is allowable for the reasons discussed above with respect to the previous claims. The Egli reference, taken alone or in combination with the Crenshaw reference, fails to disclose or suggest the instant invention; therefore, it is respectfully requested that the rejection be withdrawn.

Claims 10-13, 15, 18-19, 23-24, 32-33 and 38-42 were rejected over Crenshaw in further view of Fadler nee Jack et al. Claims 10-13, 15, 18-19, 23-24 and 32-33 are allowable for the reasons discussed above with respect to the independent claims. Claims 38-42 are directed to a process for manufacturing patterned fabrics comprising the steps of applying a water soluble chemical substance designed to inhibit wetting to a fabric to define treated and untreated fabric regions, and exposing substantially said entire fabric to an aqueous dye, such that said treated regions are wet by said aqueous dye to a lesser extent than said untreated regions, thereby forming a pattern of relatively dissimilar colors as a result of their relative differences in uptake of the aqueous dye. As noted above, the Crenshaw reference describes screenprinting a fabric with different chemical substances in different patterns rather than a process like that set forth in Applicants' claims. The Fadler nee Jack et al reference describes a method involving locally applying an aqueous solution of an alkaline agent onto an unfixed dye, and thermosoling the material so that the alkaline agent destroys the physical and chemical structure of the dyestuff. This is clearly different from the process of the instant invention, which achieves patterned fabrics by inhibiting wetting of the fabric in certain areas.



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Inventor(s): Lovingood et al.

USPTO Customer No. 25280  
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### CONCLUSION

In light of the above amendments and remarks, applicant submits that the claims are in condition for allowance, and request that the outstanding rejections be withdrawn. If a telephone conference would expedite allowance of the claims, please call the examiner to telephone Applicants' Attorney at 864-503-1596.

Applicants believe that a extension of time fee of \$920.00 is due, and the Commissioner is hereby authorized to charge this amount to Deposit Account No. 04-0500. If the USPTO determines that a further fee is due, the Commissioner is hereby authorized to charge any additional fee to the same account.

Respectfully submitted,

A handwritten signature in black ink.

Sara M. Current  
Registration No.: 38,057  
Phone No.: 864-503-1596

Milliken & Company  
920 Milliken Road, M-495  
Spartanburg, SC 29303

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### VERSION WITH MARKINGS TO SHOW CHANGES MADE

1.(amended) A process for manufacturing patterned fabrics comprising the steps of:

applying a water soluble chemical substance designed to inhibit wetting to selected regions of a fabric to define treated and untreated regions forming a pattern;

exposing substantially the entire fabric to an aqueous dye liquor until said untreated regions are saturated while said treated regions are less than fully saturated, to thereby form a patterned fabric.

22. (amended) A process for manufacturing patterned fabrics from a dye process comprising the steps of:

applying a chemical substance to selected regions of a fabric, said chemical substance being adapted to prevent total saturation of underlying fabric regions to which it is applied without requiring a subsequent operation to remove it from the fabric; and

dyeing substantially the entire fabric, to thereby produce a patterned fabric.

37. (amended) A fabric according to Claim 22, wherein the fabric defines a pattern of yarns forming the fabric, and the pattern formed by the steps of applying a chemical substance and dyeing the fabric mimics the pattern of the yarns forming the fabric.

38. (amended) A process for manufacturing patterned fabrics comprising the steps of:

applying a water soluble chemical substance designed to inhibit wetting to a fabric to define treated and untreated fabric regions; and

exposing substantially said entire fabric to an aqueous dye, such that said treated regions are wet by said aqueous dye to a lesser extent than said

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untreated regions, thereby forming a pattern of relatively dissimilar colors as a result of their relative differences in uptake of the aqueous dye.